

7-5-2012

More “dinosaur” and “pterosaur” rock art that isn’t

Philip J. Senter

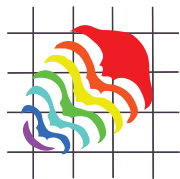
Fayetteville State University, psenter@uncfsu.edu

Follow this and additional works at: http://digitalcommons.uncfsu.edu/bio_wp

Recommended Citation

Senter, Philip J., "More “dinosaur” and “pterosaur” rock art that isn’t" (2012). *Biological Science Working Papers*. Paper 2.
http://digitalcommons.uncfsu.edu/bio_wp/2

This Article is brought to you for free and open access by the College of Arts and Sciences at DigitalCommons@Fayetteville State University. It has been accepted for inclusion in Biological Science Working Papers by an authorized administrator of DigitalCommons@Fayetteville State University. For more information, please contact xpeng@uncfsu.edu.



More “dinosaur” and “pterosaur” rock art that isn’t

Phil Senter

ABSTRACT

To support claims of the coexistence of humans with dinosaurs and pterosaurs, young-earth creationist authors have identified several pieces of ancient rock art as depictions of dinosaurs or pterosaurs. Here, nine such claims are investigated. An alleged pterosaur painting in Black Dragon Canyon, Utah, is actually not a single painting. Its “head” and “neck” are a painting of a person with outstretched arms. Its torso and limbs are those of a painting of a second person with outstretched arms, whose body continues into the “pterosaur’s” “wing.” The other “wing” is a painting of a horned serpent. The three paintings only appear connected because someone outlined the group with chalk. An alleged dinosaur petroglyph in Havasupai Canyon, Arizona, is a stylized bird with an extension on one foot; the hooked line that represents its head and neck is a stylized bird head. A second alleged dinosaur petroglyph in Havasupai Canyon is a stylized bighorn sheep or rabbit. An alleged dinosaur cave painting in Tanzania is an obvious giraffe. Three alleged cave paintings of long-necked dinosaurs in Zambia have short necks and most likely represent lizards. An alleged dinosaur painting on Agawa Rock in Lake Superior Provincial Park, Ottawa, represents Underwater Panther, a supernatural lake guardian of Ojibwe tradition. An alleged pterosaur painting at Alton, Illinois, is the product of the imagination of a nineteenth-century American author. These pieces of rock art now join the ever-growing pile of discredited “evidence” for the ancient coexistence of humans and dinosaurs.

Phil Senter. Department of Biological Sciences, Fayetteville State University, 1200 Murchison Road, Fayetteville, North Carolina 28301, U.S.A., psenter@uncfsu.edu

KEY WORDS: rock art, petroglyph, pictograph, Black Dragon, Havasupai Canyon, young-earth creationism, Dinosauria, Pterosauria

INTRODUCTION

Prehistoric peoples left a rich legacy of imagery on rock surfaces on every continent but Antarctica (Bahn, 1998). Some rock art is in the form of petroglyphs, which are pecked, gouged, or scratched into rock surfaces that have been stained by minerals so that a light-colored image is created on a darker background. Other rock art is

in the form of paintings, sometimes called pictographs, and some images are combinations of paint and petroglyphs. Animals are frequent subjects of ancient rock art. Here I report an investigation into claims that dinosaurs and pterosaurs are among the animals depicted in ancient rock art.

The fossil record and radiometric dating indicate that pterosaurs and non-avian dinosaurs became extinct about 65 million years ago (Welln-

PE Article Number: 15.2.22A

Copyright: Palaeontological Association July 2012

Submission: 20 March 2012. Acceptance: 5 July 2012

hofer, 1991; Archibald and Fastovsky, 2004) and that humans (*Homo sapiens*) appeared less than one million years ago (White et al., 2003). In contrast, according to the young-earth creationist (YEC) view, all humans and all other organisms were created during the same week about 6000 years ago (e.g., Sarfati, 2002; papers in Ham, 2006, 2008). To cast doubt on the separation of humans and dinosaurs by millions of years, YEC authors have identified various pieces of ancient rock art as depictions of dinosaurs and pterosaurs (Swift, 1997; Lyons and Butt, 2008; Isaacs, 2010; Nelson, 2011). These authors argue that ancient people must have seen the animals they depicted and that they therefore coexisted with those animals.

The most often-cited examples of alleged dinosaurs or pterosaurs in ancient rock art are an alleged sauropod petroglyph at Kachina Bridge in Natural Bridges National Monument, Utah (Swift, 1997, 2006; Taylor, 1999; Ham, 2001; Butt and Lyons, 2004; Lyons and Butt, 2008; Isaacs, 2010; Nelson, 2011); an alleged pterosaur painting in Black Dragon Canyon, Utah (Swift, 1997; Isaacs, 2010; Nelson, 2011); and an alleged dinosaur petroglyph in Havasupai Canyon, Arizona (Taylor, 1979, 1987; Ham et al., 1990; Niermann, 1994; Swift, 1997; DeYoung, 2000; Butt and Lyons, 2004; Lyons and Butt, 2008; Isaacs, 2010). Other alleged dinosaur rock art includes a second petroglyph in Havasupai Canyon (Beierle, 1980), cave paintings in Tanzania and Zambia (Mackal, 1987), and rock paintings in Ottawa and Illinois (Gibbons and Hovind, 1999). The Kachina Bridge "sauropod" has recently been discredited by the finding that its "legs" are natural mineral stains and the ancient art itself is merely a pair of sinuous, snakelike petroglyphs (Senter and Cole, 2011). Investigations of some of the other alleged dinosaurs and pterosaurs in rock art have taken place (e.g., Dewdney and Kidd, 1967; Meurger and Gagnon, 1988; Warner and Warner, 1995), but before now detailed responses to the YEC claims have not occurred.

THE BLACK DRAGON "PTEROSAUR"

Time may cause ancient pigments to fade, and rock paintings may be obscured by mineral accretions, making them too faint to show up well in photographs. Because of this, archaeologists in decades past prepared rock art for photography by using a practice called "chalking," in which one outlines a rock art image in white chalk to make it stand out. This practice has been discontinued because it damages ancient images. In the words

of archaeologist and rock art consultant Sally Cole (personal communication, 2012), "Chalking is very frowned upon these days...Three problems are paramount: (1) the chalk introduces an outside substance to the surface that may interfere with dating techniques using C14 and XRF, (2) the act of chalking undoubtedly causes and/or promotes background rock surface and image spalling and staining, particularly when on sandstone. Paintings are more vulnerable than petroglyphs as paint may flake and/or stain when touched, and (3) insofar as chalk in sheltered locations may last as long as the images, the chalking effectively interferes with future study and appreciation of the original images and compositions by all who follow. We are forced to live with white (or yellow) lines and solids and direct our view to what the chalker thought he saw. Unfortunately, many chalkers were obviously unfamiliar with the subject matter and/or chose to project their own ideas on ancient imagery, and it can be very difficult to tease out the original forms. Conservators can remove chalk but it is very expensive and funding is rarely available. Oily chalks make everything worse, as you can imagine. The secret to documentation and study of dark or faded, etc. images is photography with supportive sketching and note-taking under good natural or artificial (nondestructive) lighting conditions. Modern digital enhancement techniques and use of D-Stretch technology have really advanced the study of indistinct imagery."

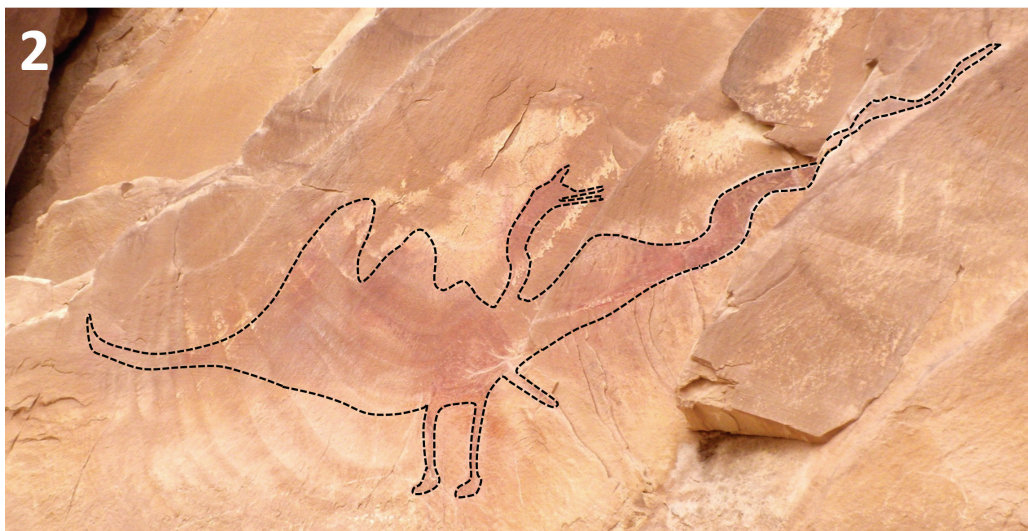
Today chalking is considered a form of vandalism of archaeological resources. Appropriately, it is illegal. It is also the origin of the Black Dragon "pterosaur." Decades ago, someone chalked an outline that joined several separate images on the wall of Black Dragon Canyon in Emery County, Utah. Together within the chalk outline they bear a vague resemblance to an animal, although to call the composite image a pterosaur one has to consider the "wings" very badly deformed and very unlike each other (Figure 1).

The illusion of a single animal within the chalk outline inspired this unfortunate quote in a popular 1979 book on southwestern archaeology: "In the San Rafael Swell, there is a pictograph that looks very much like a pterosaur, a Cretaceous flying reptile" (Barnes and Pendleton, 1979, p. 201). At least three YEC authors have used that quote along with photos of the "dragon" to support claims that ancient humans encountered pterosaurs (Swift, 1997; Isaacs, 2010; Nelson, 2011). Isaacs (2010) and Nelson (2011) likened the image specifically to the crested pterosaur *Quetzalcoatlus*. All

1



2



3

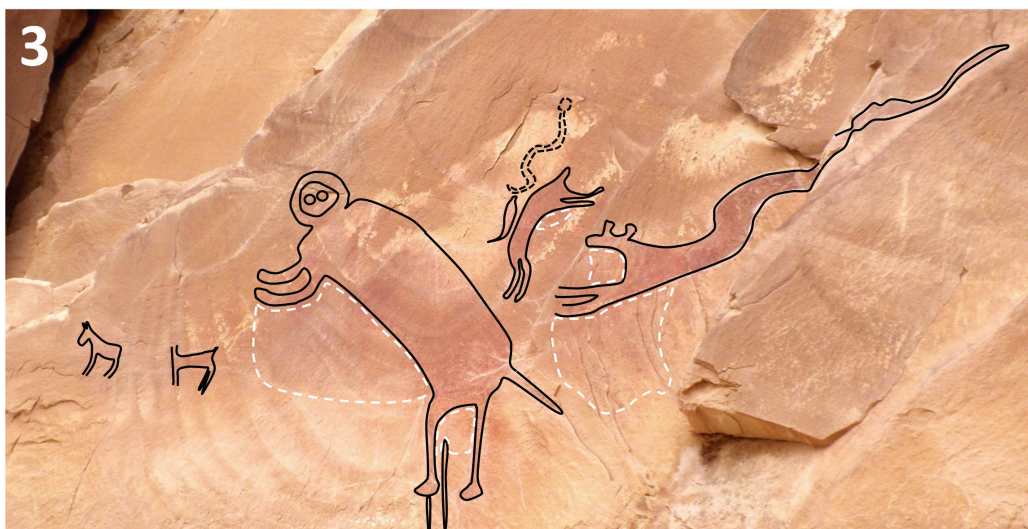


FIGURE 1. Alleged pterosaur painting at Black Dragon Canyon, Utah. **1.1.** The author and the rock art panel. **1.2.** Enlargement of the rock art panel, with broken black line indicating twentieth-century chalk outline. **1.3.** Enlargement of the rock art panel, with solid black outlines indicating ancient paintings, broken white outline indicating areas where the pigment has bled downward, and broken black outline indicating a petroglyph.

three YEC authors were apparently unaware of a previous article that revealed the non-pterosaurian nature of the rock art (Warner and Warner, 1995). That is understandable, because the article was

published in *Utah Rock Art*, a journal with very limited circulation.

According to Warner and Warner (1995) within the chalk outline are five separate painted images made in the Barrier Canyon style (Figure

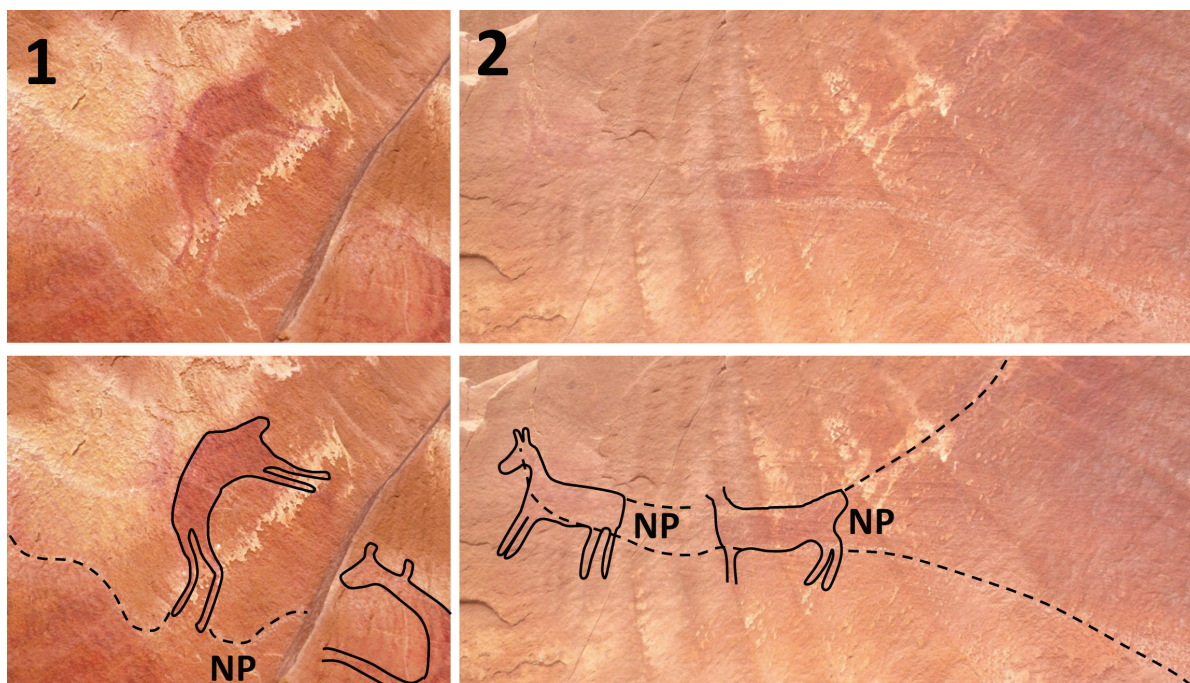


FIGURE 2. Details of rock art panel at Black Dragon Canyon. **2.1.** Small anthropomorph and forepart of horned serpent, indicated by solid black outline, and twentieth-century chalk indicated by broken black outline. **2.2.** Pair of quadrupeds indicated by solid black outline, and twentieth-century chalk indicated by broken black outline. NP = areas with no pigment.

1.3). The Barrier Canyon artistic style, a product of early hunter-gatherers, is widespread in eastern Utah and western Colorado; its temporal range is estimated at about 2000 BC to AD 400 (Cole, 2009). One image, an anthropomorph (human or humanlike figure) with its arms outstretched to the viewer's right, makes up the "pterosaur's" "head" and "neck" (Figure 2.1). The figure's head is the "crest" described by the YEC authors, and its arms are the "beak." One "wing" is a painting of a horned serpent. The other "wing" includes the torsos of two quadrupedal animals with their limbs outside the chalked outline, as well as blank areas to the viewer's right of each (Figure 2.2). The "pterosaur's" legs and feet are those of a second, larger anthropomorph that leans to the viewer's left, the torso of which makes up the base of the "pterosaur's" other "wing." The figure sports a short tail that protrudes to the viewer's right. The arms of the figure are stretched out to the viewer's left. The upper half of the larger anthropomorph is faded and unclear from a distance. Weathering, possibly from rain or use of very thin paint (perhaps by design), has caused much of the pigment from its torso and arms to bleed downward; this is the origin of much of the "wing" on the viewer's left (Figure 1.3). Similar downward bleeding of pigment is

present beneath the serpent's head, beneath the arms of the smaller anthropomorph, and beneath the legs of the larger anthropomorph, allowing comparison that confirms that much of the "wing" is rain-bleed pigment and not part of the original image.

I visited the site myself in July 2011. My own observations confirmed those of Warner and Warner (1995) and added additional details about the serpent. Its two horns project outside the chalk outline, and it appears to have a pair of limbs that extend toward the viewer's left. Horned serpents, with or without a pair of limbs, appear elsewhere in Barrier Canyon style rock art (Cole, 2004b) and are also present in later southwestern rock art (Spangler, 2004; Cole, 2009). In fact, rock art depicting horned serpents is geographically widespread in North America and represents spirits of water and weather. Spirits or monsters that are envisioned as horned serpents and that dwell in lakes, cause storms and water disturbances, and may need to be appeased to ensure safe lake crossings, are present in the mythology of tribes from such disparate areas as the Great Lakes region, the northwest coast, the great plains, and the southwest (Meurger and Gagnon, 1988). The depiction of such entities as horned probably has a naturalistic

explanation: Great Lakes tribes are known to have identified fossil mammoth tusks from lakes as horns of water monsters (Mayor, 2005).

Barrier Canyon style rock art often includes figures that Warner and Warner (1995) call supplicators. Such figures are bent at the waist, with their arms outstretched toward some object of devotion. The two anthropomorphs in the “pterosaur” fit this description. According to Warner and Warner (1995), no devotional object has been painted for either figure, but on the summer solstice the head of a snake painted above and associated with the smaller supplicator is aimed toward the point of sunrise, and the arms of the larger supplicator are aimed toward the point of sunset. It is therefore possible that the object of their devotion is the sun. Although this is possible, I suggest that the horned serpent is the small anthropomorph’s devotional object.

Swift (1997) and Nelson (2011) cite the narrow tail of the larger supplicator as evidence that the “dragon” is a pterosaur and not a bird. However, tails are often present in Barrier Canyon style supplicators, both anthropomorphic and zoomorphic (Warner and Warner, 1995). The tail is therefore consistent with a supplicating anthropomorph.

Were it not for the chalking, which creates the illusion of unity, there would be no reason to consider this collection of images a single image of an animal. Even a few meters away, it is obvious that the smaller human figure and the horned serpent are unconnected to the other figures. The quadrupeds in the “right wing” are too faint to discern from a distance, but up close they are obviously unconnected to each other and to any other image. Enclosed within the chalk outline are three broad areas that lack any pigment, original or bled. One such area is between the two quadrupeds, one is between the right-hand quadruped and the larger anthropomorph, and one is between the anthropomorphs and the horned serpent (Figure 2). At close range the lack of pigment in these three broad areas is easy to see, making the lack of connection between the five images pronounced. It is therefore plausible that the chalker was aware that he or she was uniting five separate images and the blank areas between them. The possibility therefore exists that the chalking was done not as an archaeological exercise but as a practical joke, creating the illusion of a dragon for the sake of whimsy. If so, it is a very successful ruse that continues to fool many to this day.

THE HAVASUPAI CANYON “DINOSAURS”

In 1924 Samuel Hubbard, curator of archaeology at the Oakland Museum in Oakland, California, led an expedition into Havasupai Canyon, Coconino County, Arizona. Hubbard published select archaeological and geological observations from the expedition in 1927. Among them were the description and photograph of a petroglyph (Figure 3.1) that Hubbard claimed was a late-surviving dinosaur: “The fact that the animal is upright and balanced on its tail would seem to indicate that the prehistoric artist must have seen it alive” (Hubbard, 1927, p. 9). In support of that conclusion Hubbard accompanied the photo with a drawing of a *Diplodocus* standing upright on its hindlimbs (Figure 3.2). Hereafter, I shall call this petroglyph HD1 (Havasupai “Dinosaur” 1) as a shorthand way to distinguish it from the other alleged dinosaur petroglyph from Havasupai Canyon (HD2).

In 1979 the evangelical film *The Great Dinosaur Mystery* was published. In the film and a follow-up children’s book a photo of HD1 was accompanied by a picture of an *Edmontosaurus* that was contorted into an impossible posture to match the shape of the petroglyph (Taylor, 1979, 1987) (Figure 3.3). HD1 subsequently became famous in the YEC community and has been mentioned in numerous YEC publications (Ham et al., 1990; Niemann, 1994; Swift, 1997; DeYoung, 2000; Butt and Lyons, 2004; Lyons and Butt, 2008; Isaacs, 2010).

HD1 consists of a central oval with from which three lines emanate (Figure 3.1). A relatively straight line (the “dinosaur’s” hindlimb) projects downward. A line that is downhooked at the tip (the head and neck) projects upward from the left end of the oval. From the right end of the oval projects a long line (the “tail”) that curves upward into a “U” shape. There is no reason to interpret this image as a dinosaur. It has no dinosaur-specific features. Taylor’s (1979, 1987) identification of the image as a hadrosaur such as *Edmontosaurus* is absurd, because the “tail” is strongly upturned, whereas hadrosaurian tails were held horizontally, in line with the vertebrae of the torso; their tails were straight and were held stiffly in that configuration by a lattice of ossified tendons that prevented bending (Galton, 1970).

To determine the identity of an animal represented in rock art, it is important to understand the artistic conventions of the culture that produced the art. For example, in American cartoons of the twentieth and twenty-first centuries a short-legged, long-snouted animal with green skin and a jagged

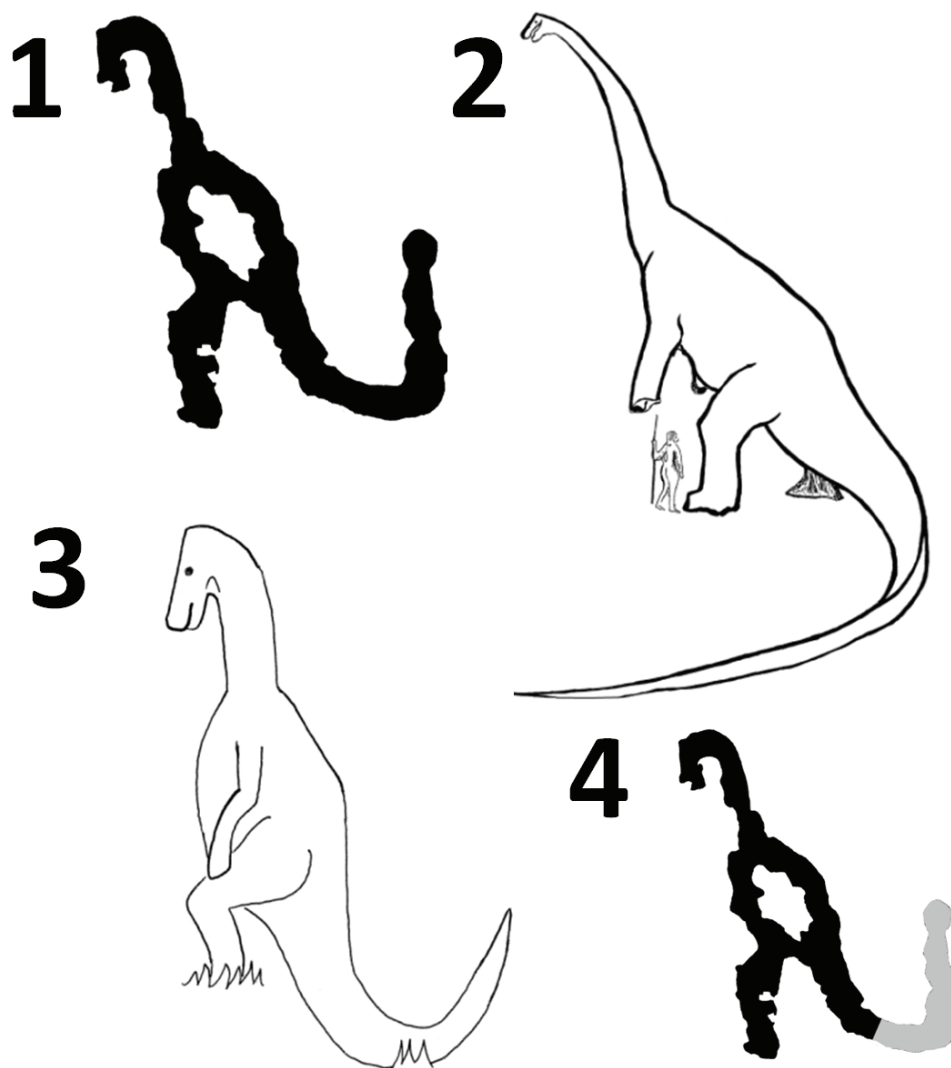


FIGURE 3. An alleged dinosaur petroglyph in Havasupai Canyon, Arizona, and interpretations of its identity. **3.1.** The petroglyph (from Hubbard, 1927). **3.2.** Drawing of the sauropod dinosaur *Diplodocus* by Charles Knight, used by Hubbard (1927) to support the interpretation that the petroglyph represents a sauropod. **3.3.** Depiction of the hadrosaur *Edmontosaurus*, used by Taylor (1979, 1987) to support the interpretation that the petroglyph represents a hadrosaur. **3.4.** The interpretation advanced here: that the petroglyph is a stylized bird (black) with a J-shaped extension (gray) on one foot.

dorsal crest of upright triangular plates is understood as a stylized alligator or crocodile, despite the fact that alligators and crocodiles have neither green skin nor a jagged dorsal crest of upright triangular plates (Figure 4). Similarly, in southwestern rock art a quadruped with a long tail curled over its back is understood as a stylized mountain lion, even when it is drawn with a long snout (Young, 2004). Other stylistic conventions in southwestern rock that are important here include the following. First, quadrupeds are typically drawn with all four limbs showing (Figure 5.1, 5.2), although in some cases two or all four limbs are omitted. Similarly,

bipeds are typically drawn with both legs showing, although in some cases the limbs are omitted. The “hiding” of one limb behind another in a side view so that only one forelimb and one hindlimb of a quadruped are shown, or so that only one hindlimb of a bird or human is shown, is absent in southwestern rock art from all pre-Spanish periods. Second, a biped with an oval or semicircular body and a head and neck represented by a single line that is hooked at the tip, is a bird. Numerous examples of birds with a hooked head-and-neck line are known from southwestern rock art of the Pueblo II (AD ~900 – 1150) and III (AD ~1150 – 1450) peri-



FIGURE 4. Stylization, as illustrated by the American alligator. **4.1.** Stylized alligator in the logo of the Paper-Gator recycling program; note its green color and the row of upright triangular plates on its back. **4.2.** American alligator (*Alligator mississippiensis*); note that it has neither green color nor a row of upright triangular plates on its back.

ods (Cole, 2004a, 2009) (Figure 5.4). Third, it is common in southwestern rock art of pre-Spanish periods for two or more images to connect as one, or for an extension to be added to a limb or head (Figure 5.3).

Given the above conventions, the following conclusions can be drawn regarding HD1: (1) It is not likely to be a quadruped, because four limbs are not present; Hubbard's (1927) identification of it as a sauropod dinosaur is therefore unlikely, (2) If it is a biped, then the U-shaped line is not a tail but one of its legs, (3) Its hooked head-and-neck line and oval body show that HD1 is indeed a biped, specifically a stylized bird, (4) One of the bird's legs either has a J-shaped extension or is connected to an upside-down crook (Figure 3.4), neither of which would be particularly unusual. The crook is a southwestern rock art motif that is related to fertility (Patterson, 1992). An upside-down crook is found at a lower level on the same panel as HD1 (Figure 5.1), which shows that the local producers of rock art were familiar with the symbol.

HD2 (Figure 5) occurs in the same panel as HD1 at a similar vertical level (Hubbard, 1927). It appeared in Taylor's (1979) motion picture as an

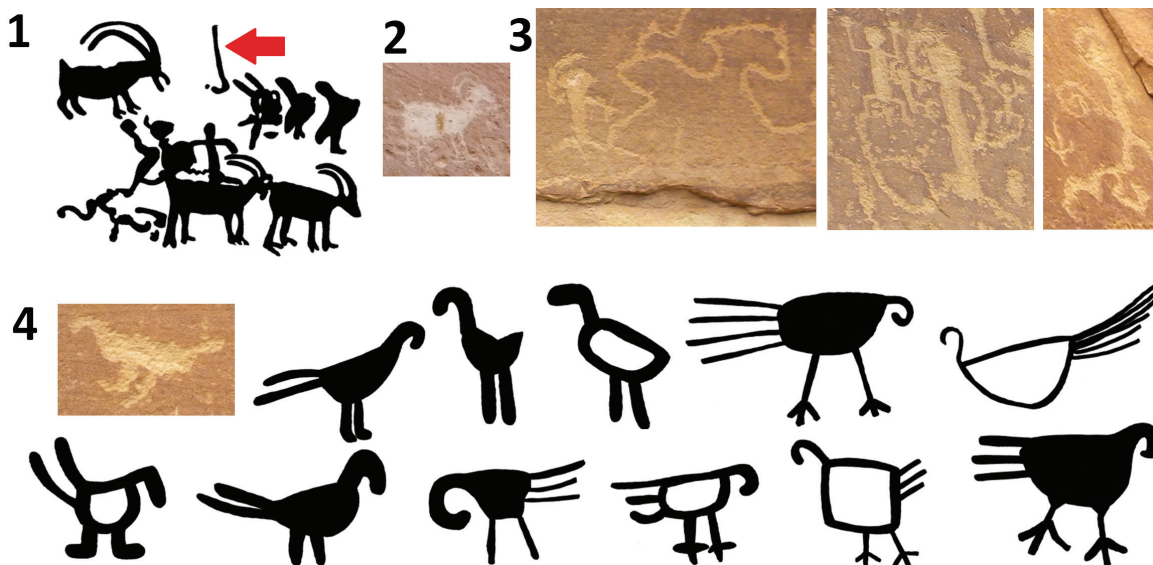


FIGURE 5. Southwestern rock art images, illustrating stylistic conventions that show that the petroglyph in Figure 3.1 is not a quadruped but a bird with a foot extension. **5.1.** Petroglyphs from lower on the same panel as the “dinosaur” in Figure 3.1, showing an upside-down, J-shaped crook (indicated by red arrow) and bighorn sheep with all four limbs shown (from Hubbard, 1927). **5.2.** Bighorn sheep painting at Kachina Bridge, Natural Bridges National Monument, Utah, with all four limbs shown. **5.3.** Petroglyphs at Pictograph Point in Mesa Verde National Park, Colorado, showing an anthropomorph with an extension on one foot (left), two anthropomorphs connected by foot extensions (middle), and another anthropomorph with an extension on one foot (right). **5.4.** Bird depictions in southwestern rock art, showing that a hooked line represents the head and neck of a stylized bird and that a stylized bird may have an open ovoid shape for a body; sources (clockwise from upper left): photo by author, taken at Pictograph Point; Turner 1971, fig. 20; Turner 1971, fig. 99; Schaafsma 1986, fig. 87; six bird images from Cole 2004a, fig. 4; Cole 2009, fig. 91; Cole 2009, fig. 99; all but the one from Schaafsma (1986) are from the Pueblo II – III periods.



FIGURE 6. A second alleged dinosaur petroglyph from Havasupai Canyon (from Beierle, 1980). The animal is actually a rabbit or a bighorn sheep drawn in a style peculiar to the Pueblo III period.

example of art left by ancient humans but was not identified as a dinosaur therein. It has been identified as a dinosaur (no specific kind) only by Beierle (1980), who called HD1 a possible llama. Comparison with other rock art shows that HD2 could be a bighorn sheep. Bighorn sheep in most southwestern rock art are drawn with a distinct neck and with the horns obviously arising from the head (Figure 6.1, 6.2), whereas in HD2 the horns seem to arise directly from a neck that is barely there. However, bighorn sheep drawn with horns directly arising from a neck that is just barely there are characteristic of southwestern rock art of the late Pueblo III

period (Turner, 1971). Alternately, it is possible that the long "horns" are ears, and that the animal is a rabbit. Either way, these two possibilities show that there is no need to invoke a dinosaur to explain this petroglyph. Also, the petroglyph does not resemble any specific, known kind of dinosaur.

THE TANZANIAN AND ZAMBIAN "DINOSAURS"

Cryptozoologist Roy Mackal's 1987 book *A Living Dinosaur? In Search of Mokele-Mbembe* tells of the search for an entity that natives of the Congo call Mokele-Mbembe. According to Mackal, Mokele-Mbembe is a sauropod dinosaur. In support of the idea that living sauropods inhabit Africa, he cites cave paintings in Tanzania and Zambia that he claims represent long-necked quadrupeds that are unknown to science. While he stops short of explicitly calling them paintings of sauropods, the idea that they are sauropod paintings is strongly implied.

The Tanzanian cave painting that Mackal cites and illustrates (Figure 7.1) is among those reported by Kohl-Larsen and Kohl-Larsen (1958). It is a quadruped with a long neck, a mane, and short horns on the head. It is obviously a giraffe, despite Mackal's (1987, p. 9) inexplicable assertion that "what it may be we cannot say, except that it definitely is not a giraffe." If the painting were of a sauropod one would expect it to lack horns and a mane and to have a tail as long and thick as the neck. Instead, the tail is very thin and quite short compared to the neck, which is the case both in the other Tanzanian cave paintings of giraffes (Kohl-

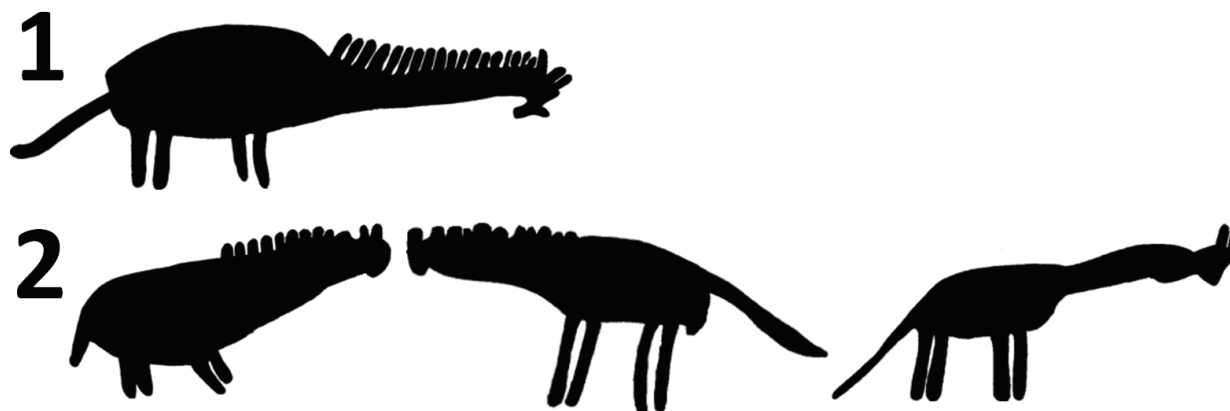


FIGURE 7. Tanzanian rock art depicting giraffes, from Kohl-Larsen and Kohl-Larsen (1958). **7.1.** A giraffe that Mackal (1987) considered a sauropod dinosaur. **7.2.** Other giraffes from Tanzanian rock art, showing that the alleged sauropod is actually a giraffe; of these three, the one on the left is from the same panel as 7.1.

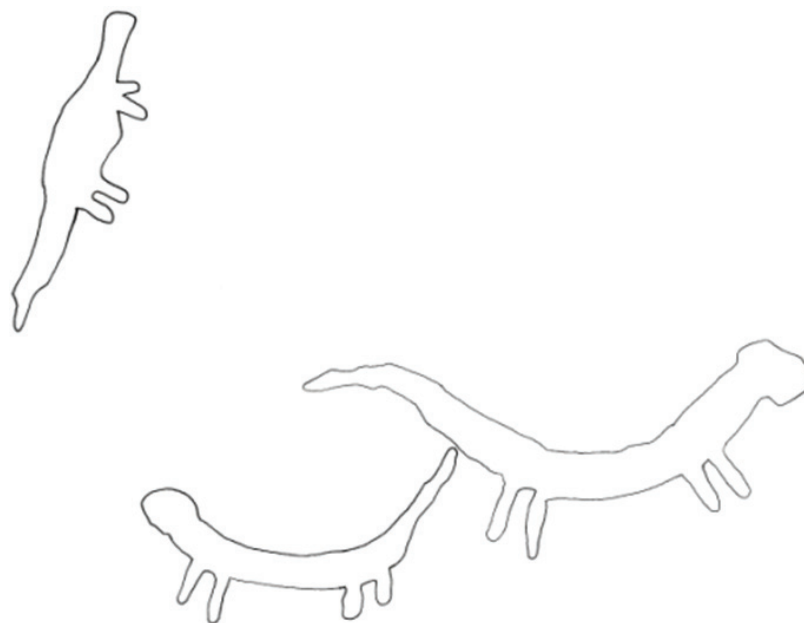


FIGURE 8. A group of three paintings of short-necked quadrupeds, probably lizards, from Clark (1959). Mackal (1987) called the animals long-necked and implied that they are sauropods.

Larsen and Kohl-Larsen, 1958) (Figure 7.2) and in real giraffes.

The Zambian cave paintings that Mackal cites and illustrates (Figure 8) were reported by Clark (1959). They are a group of three animals on one panel. According to Mackal (1987, p. 8) they are “three long-necked, long-tailed, four-legged creatures...What these creatures are is unclear, but they are certainly not crocodiles. The head is distinctly separated from the thinner neck region.” Mackal is incorrect in his claim that the animals have long necks. All three necks are short (Figure 8). The short limbs and long, thick tails are consistent with depictions of lizards or crocodiles. The short snouts resemble those of lizards more than those of crocodiles, but the depictions are too rudimentary to rule out stylized crocodiles entirely. Mackal’s objection to the crocodile interpretation—that the width of the head exceeds that of the neck—also rules out sauropods.

THE AGAWA ROCK “DINOSAUR”

At the Agawa Rock site (also called Inscription Rock) on Lake Superior in Lake Superior Provincial Park, Ottawa is a panel of rock paintings. It includes an image of a horned animal that, according to YEC authors Gibbons and Hovind (1999), “bears a striking resemblance to a European-style dragon (or dinosaur)” (Figure 9.1). Also included in the panel are images of five canoes, two serpents, a kingfisher, an eagle, a tortoise, a man on horse-

back, and a symbol composed of four circles over a shallow U shape.

The meaning of the art is already known, and it has nothing to do with dinosaurs. In the early nineteenth century an Anishinaabe rock art expert named Chingwauk explained to American geographer and ethnographer Henry Schoolcraft that the panel commemorates a crossing of the lake by a five-canoe war party. The first canoe was led by an individual whose symbol was the kingfisher. The eagle represents courage. The land-tortoise represents reaching land. The man on horseback is Myeengun, the organizer of the war party. The four circles over the U shape signify that it took four days to cross the lake. The serpents and the horned animal, respectively, represent the Great Serpent and Underwater Panther, supernatural entities that were drawn to express appreciation that they allowed the lake crossing (Dewdney and Kidd, 1967; Meurger and Gagnon, 1988).

Underwater Panther, also known as the Night Panther, the Great Lynx, or Mishipizhiw (with various alternate spellings), is a water spirit in the traditions of tribes near the Great Lakes. It was said to inhabit the depths of lakes and was thought to cause storms and great winds by thrashing its tail. Prayers and the sacrifice of dogs to Underwater Panther were thought to be necessary to ensure safe lake crossings (Dewdney and Kidd, 1967; Meurger and Gagnon, 1988).

The name "panther" is an archaism for what is now known as the mountain lion (*Puma concolor*). Depictions of Underwater Panther typically are stylized and lack much resemblance to a mountain lion. It was depicted with curving, buffalo-like horns; a round head; and sometimes with short lines emanating from its back (Figure 9). The horns, serpentine form in some depictions (Figure

9.2 – 9.3), and function as a water spirit and storm causer identify Underwater Panther as a variation on the horned serpent theme of North American mythology. Its depictions in rock art are often accompanied by canoes, which suggest that as with the Agawa Rock paintings, they were made to express appreciation that Underwater Panther had allowed safe lake crossings (Figure 9.2).

Several lines of reasoning show that the Agawa Rock image is not a dinosaur. First, Underwater Panther is a supernatural entity, not a natural animal. Second, Underwater Panther is said to live in lake bottoms, whereas dinosaurs were terrestrial. Third, the horse and rider on the Agawa Rock panel show that it was made during colonial times; if dinosaurs were present in North America then, they certainly would have been noticed by European explorers. Fourth, although the uninformed might associate the lines emanating from the image's back as dinosaurian spikes, in Great Lakes iconography lines emanating from an image represent power (Dewdney and Kidd, 1967), and these lines are often absent (Figure 9). Fifth, the one feature that most Underwater Panther depictions have in common is a round head with a pair of buffalo-like horns; this does not resemble any known dinosaur with or without a spiked back. Sixth, Great Lakes tribes are known to have identified fossil mammoth tusks as horns of water monsters (Mayor, 2005), which suggests that the depicted form of Underwater Panther is based on fossil mammoth tusks, not live dinosaurs.

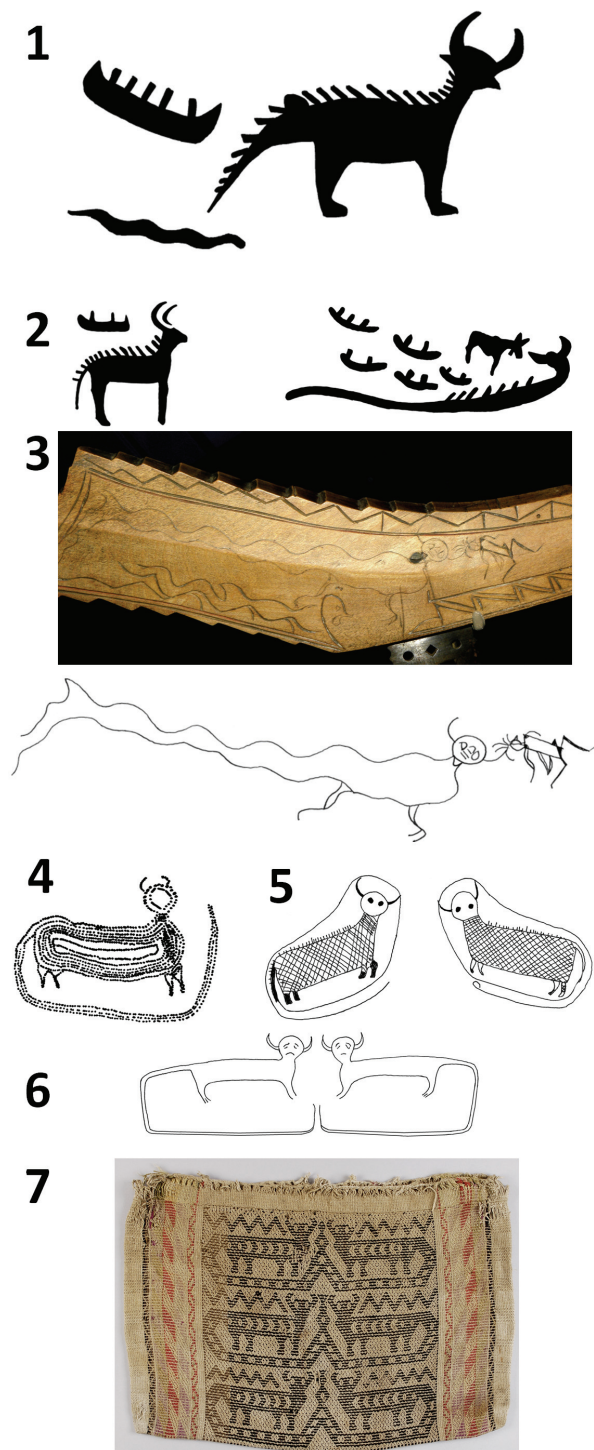


FIGURE 9 (left). Images of Underwater Panther, a water spirit in the traditions of tribes from near the Great Lakes. Note that this being is depicted in various forms, none of which are particularly like a dinosaur. **9.1.** The Underwater Panther of Agawa Rock (from Meurger and Gagnon, 1988), which Gibbons and Hovind (1999) liken to a dinosaur. **9.2.** Two other images of Underwater Panther in Great Lakes rock art (from Dewdney and Kidd, 1967); note the common presence of canoe images, suggesting that Underwater Panther was painted in appreciation for allowing safe lake crossing. **9.3.** Underwater Panther and victim, carved onto an Ojibwe war club from around the year 1800. Canadian Museum of Civilization specimen III-G-834. **9.4.** Underwater Panther in a quillwork depiction on an Ottawa buckskin bag, c. 1780 (Coe, 1976). **9.5.** Underwater Panther, carved onto a Winnebago war club collected in 1839 (Feder, 1965). **9.6.** Underwater Panther, carved onto a Mide board, used in Ojibwe rites, c. 1860-1880 (Coe, 1976). **9.7.** Underwater Panther in black yarn on woolen bag from the mid-1800s, tribe of origin unknown. Canadian Museum of Civilization specimen III-X-777.

THE ILLINOIS “PTEROSAUR”

In a chapter on alleged encounters between humans and live pterosaurs, Gibbons and Hovind (1999) include the story of a rock painting near Alton, Illinois. According to Gibbons and Hovind, members of the Illini tribe told the seventeenth-century French explorers Jacques Marquette and Louis Joliet that the painting depicted a flying creature called the Piasa bird. The Piasa bird had snatched people from canoes for years until a group of warriors killed it with arrows when it swooped toward their chief, Ouatoaga. The painting was made to commemorate the killing of the creature.

Gibbons and Hovind’s information source was mistaken. In fact, there is no such Native American legend. The alleged Illini legend and the character Ouatoaga are the inventions of American author John Russell. Russell created this fake Illini legend and published it in *The Family Magazine* in 1836 and again in *Evangelical Magazine and Gospel Advocate* in 1848. Russell did not intend his tale to be taken seriously as history. According to his son, he created the story from a blend of his own imagination and an account of rock art by Father Marquette (Temple, 1956).

Marquette had published a description of a pair of monsters in a rock art panel that he and Joliet saw in 1673 on a cliff on the Mississippi near Alton. Marquette mentioned neither wings, nor the name Piasa, nor any legend or information that anyone provided about the paintings. In Marquette’s own words, “As we coasted along rocks [near Alton] that were awful for their height and length, we saw on one of the rocks two painted monsters that made us afraid and upon which the hardest savages dared not long rest their eyes. They are as big as a calf, they have horns on the head like deer [or possibly goats], an awful look, red eyes, a beard like a tiger’s, the face something like a man’s, the body covered with scales, and the tail so long that it makes a turn all around the body and passes under the head and returns between the legs and ends in the tail of a fish. Green, red, and blackish are the three colors used. Moreover, the two monsters are so well painted that we cannot believe that any savage was their author, since good painters from France have painted so well, besides which they are so high on the rock that it is difficult to conveniently reach there to paint them” (Marquette, 1855, my own translation from the French).

The paintings most likely depicted Underwater Panther or his equivalent. Their short faces with

feline features are consistent with an entity called a “panther” (an old colloquialism for the mountain lion) or a lynx. They are horned, as is Underwater Panther (Figure 9). Their fishlike tails are consistent with aquatic habits. Also, Underwater Panther was often depicted with the tail curling around the body (Figure 9.5) and was sometimes depicted as a pair (Figure 9.5 – 9.7). The paintings were within the geographic range of the tribes with Underwater Panther traditions. Of course, without wings and with humanlike faces, the paintings were obviously not those of pterosaurs.

Father Louis Hennepin, a Belgian missionary, added that the panel of paintings included a horse in addition to “other beasts” (possibly the two paintings in question). Local tradition held that a large number of Miamis had drowned there, and since then the locals would smoke and offer tobacco there to appease the spirits (Hennepin, 1698). The need to appease spirits for the sake of water safety is consistent with Underwater Panther or his equivalent as the subject of the paintings. That this is the same rock art panel seen by Marquette and Joliet is confirmed by Hennepin’s (1698) acknowledgement that these were the monsters that had frightened Joliet.

Russell’s fictional story inspired many to claim they had seen the paintings and to publish “eyewitness” descriptions of them, which varied too vastly to be credible. John Russell’s son even published a detailed description of the paintings, which he questionably claimed to have seen in 1849 (Temple, 1956), two years after the cliff had been quarried away (McAdams, 1887). The numerous drawings and verbal “eyewitness” descriptions of the paintings that appeared in the 1800s (Armstrong, 1887; McAdams, 1887; Temple, 1956) are suspect, because weathering had rendered the paintings “nearly effaced”—in the 1698 words of Canadian missionary J. F. Buisson de Saint-Cosme (Temple 1956)—over a century earlier. The tendency of nineteenth-century North American authors to invent fake descriptions of the paintings parallels the tendency during the same century for North American authors to invent various fake Indian legends about the Piasa bird, all of which postdate Russell’s story and were apparently inspired by it (Temple, 1956).

As American author Perry A. Armstrong (1887) frankly admitted, “nor, indeed, have we any photographs or other pictures of these monsters known to be accurate. They were delineated on the river side of the rock and destroyed before any efforts were made to even take ‘counterfeit presen-

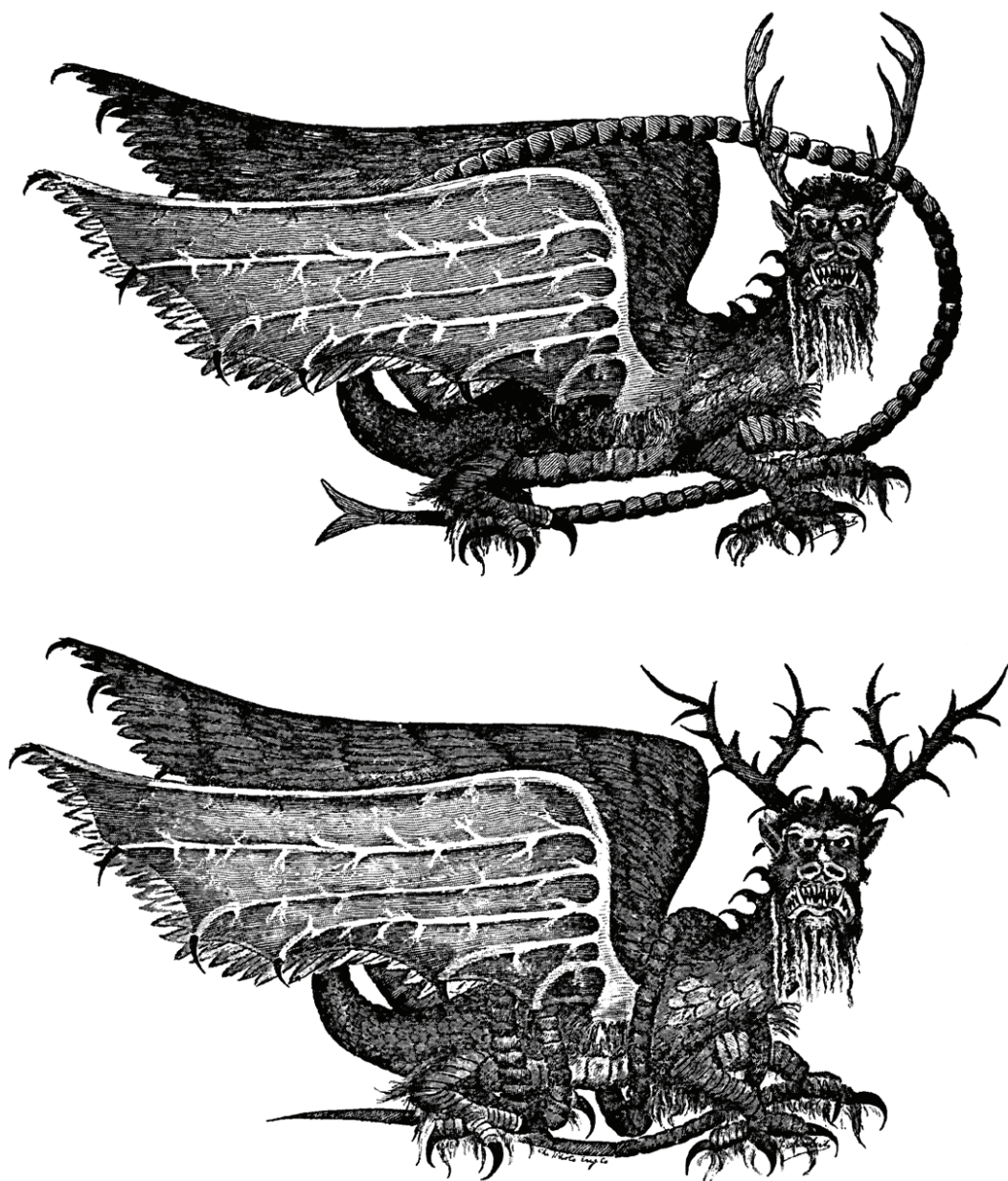


FIGURE 10. Reconstructions of an alleged pair of pterosaurs in rock art near Alton, Illinois, from p. 2 (top) and p. 25 (below) of Armstrong (1887).

tations of them.” According to Armstrong, by the time the paintings were destroyed only “traces of their outlines” remained, due to a longstanding tradition among Native Americans to fire arrows and bullets at the paintings as they passed them. Nonetheless, Armstrong (1887) published reconstructions of the two paintings, which he claimed were accurate even though he said they were made by an engraver who had not seen the originals and who was copying paintings made by people who themselves had not seen the originals, who in turn

relied on descriptions by “those who were familiar with” the originals at a time when only traces remained. Armstrong’s (1887) reconstructions (Figure 10) have become famous, but given the above and the fact that they don’t match Marquette’s description, they cannot be considered reliable.

Interestingly, Armstrong (1887) was the first to identify the Piasa bird as a pterosaur, specifically *Rhamphorhynchus*. This identification is puzzling, because neither *Rhamphorhynchus* nor any other known pterosaur has horns or a fishlike tail tip. No

pterosaur resembles Marquette's description or Armstrong's reconstructions. Also, *Rhamphorhynchus*, the size of a crow, could hardly have carried off humans, as Armstrong claims that the real Piasa bird did.

CONCLUSIONS AND DISCUSSION

The rock art "pterosaur" and "dinosaurs" investigated here can now be added to the plethora of discredited lines of evidence for the coexistence of humans with such animals. The Black Dragon "pterosaur" is a composite of several images, the Alton "pterosaurs" were wingless, and the "dinosaurs" are a bird, a sheep, a giraffe, three probable lizards, and a water spirit. As shown here, when evaluating the meanings of ancient images it is important to consider their archaeological, cultural, and historical contexts as well as local natural history. It is unwise to jump to the conclusion that a dinosaur or pterosaur is represented without first studying such contexts to determine whether a less exciting alternative explanation is more plausible.

The only other rock art "dinosaurs" that have been alleged in hard-copy publications are the discredited Kachina Bridge "sauropod" (Senter and Cole, 2011); the petroglyph of a fire-breathing animal in Wupatki National Park, Arizona (Isaacs, 2010); and the alleged carving of a dinosaur fighting a mammoth in Bernifal Cave, France (Cuozzo, 1998). The animal in the Wupatki National Park petroglyph has a single horn, two dorsal humps, and a forked tail. It resembles neither any known dinosaur nor other southwestern rock art. This raises the possibility that it is a twentieth-century hoax or joke, although firsthand analysis would be needed to test that hypothesis. The Bernifal Cave item is unclear in the one published photograph of it (Cuozzo, 1998), and firsthand examination will be necessary for any firm conclusions to be drawn. As of this publication, therefore, the number of as-yet unfalsified "dinosaur" and "pterosaur" rock art images in hard-copy literature has dwindled from twelve to two, and those two are problematic. This should give pause to those who still entertain the notion that ancient humans encountered dinosaurs and pterosaurs.

ACKNOWLEDGMENTS

I would like to thank the following people for their contributions to this work. S. Cole provided a copy of her 2004a paper and put me in touch with S. Manning. S. Manning provided directions to the Black Dragon site and a copy of Warner and War-

ner (1995). J. Dunphy provided references on the Piasa bird. N. Guénette, T. Anderson, and V. Lafond of the Canadian Museum of Civilization helped to arrange for permission to publish Figure 8.7, a Canadian Museum of Civilization photo. My wife and research assistant, J. Senter, helped locate the Black Dragon site and took some of the photos published here. BPV Environmental provided permission to use the PaperGator logo in Fig. 4.1. Two anonymous reviewers provided useful suggestions that improved this manuscript.

REFERENCES

- Archibald, J.D. and Fastovsky, D.E. 2004. Dinosaur extinction. p. 672-684. In Weishampel, D.B., Dodson, P., and Osmólska, H. (eds.), *The Dinosauria, Second Edition*. University of California Press, Berkeley.
- Armstrong, P.A. 1887. *The Piasa, or the Devil Among the Indians*. E.B. Fletcher, Morris, Illinois.
- Bahn, P.G. 1998. *Prehistoric Art*. Cambridge University Press, Cambridge.
- Barnes, F.A. and Pendleton, M. 1979. *Canyon Country Prehistoric Indians. Their Cultures, Ruins, Artifacts, and Rock Art*. Wasatch, Salt Lake City.
- Beierle, F.P. 1980. *Man, Dinosaur, and History*. Perfect Printing, Prosser, Washington.
- Butt, L. and Lyons, E. 2004. *Dinosaurs Unleashed*. Apologetics Press, Montgomery.
- Clark, J.D. 1959. The rock paintings of Northern Rhodesia and Nyasaland. p. 163-220. In Summers, R. (ed.), *Prehistoric Rock Art of the Federation of Rhodesia and Nyasaland*. National Publications Trust, Rhodesia and Nyasaland.
- Coe, R.T. 1976. *Sacred Circles. Two Thousand Years of North American Indian Art*. Lund Humphries, London.
- Cole, S.J. 2004a. Archaeological documentation and assessment of rock art in Mesa Verde National Park, Colorado. Final Report of Colorado State Historical Society State Historical Fund Project 2000-PI. Mesa Verde Association, Mesa Verde National Park. Colorado.
- Cole, S.J. 2004b. Origins, continuities, and meaning of Barrier Canyon style rock art. p. 7-78. In Matheny, R.T. (ed.), *New Dimensions in Rock Art Studies*. Brigham Young University, Provo, Utah.
- Cole, S.J. 2009. *Legacy on Stone: Rock Art of the Colorado Plateau and Four Corners Region*. Johnson Press, Boulder.
- Cuozzo, J. 1998. *Buried Alive. The Startling Truth about Neanderthal Man*. Master Books, Green Forest, Arkansas.
- Dewdney, S. and Kidd, E. 1967. *Indian Rock Paintings of the Great Lakes*. University of Toronto Press, Toronto.
- DeYoung, D.B. 2000. *Dinosaurs and Creation. Questions and Answers*. Baker Books, Grand Rapids.
- Feder, N. 1965. *American Indian Art*. Harry N. Abrams, New York.

- Galton, P.M. 1970. The posture of hadrosaurian dinosaurs. *Journal of Paleontology*, 44:464-473.
- Gibbons, W.J. and Hovind, K. 1999. *Claws, Jaws, and Dinosaurs*. CSE Publications, Pensacola.
- Ham, K. 2001. *Dinosaurs of Eden*. Master Books, Green Forest, Arkansas.
- Ham, K. 2006. *The New Answers Book 1*. Master Books, Green Forest, Arkansas.
- Ham, K. 2008. *The New Answers Book 2*. Master Books, Green Forest, Arkansas.
- Ham, K., Snelling, A., and Wieland, C. 1990. *The Answers Book*. Master Books, El Cajon, California.
- Hennepin, L. 1698. *A New Discovery of a Vast Country in America, Extending Above Four Thousand Mile Between New France and New Mexico, with a Description of the Great Lake, Cataracts, Rivers, Plants, and Animals*. M. Bentley, J. Tonson, H. Bonwick, T. Goodwin, and S. Manship, London.
- Hubbard, S. 1927. *The Doheny Scientific Expedition to the Hava Supai Canyon, Northern Arizona*. Sunset Press, San Francisco.
- Isaacs, D. 2010. *Dragons or Dinosaurs? Creation or Evolution?* Bridge-Logos, Alachua, Florida.
- Lyons, E. and Butt, L. 2008. *The Dinosaur Delusion*. Apologetics Press, Montgomery.
- Kohl-Larsen, L. and Kohl-Larsen, M. 1958. *Die Bilderstrasse Ostafrikas. Felsbilder in Tanganyika*. Erich Roth-Verlag, Kassel.
- Mackal, R.P. 1987. *A Living Dinosaur? In Search of Mokele-Mbembe*. E.J. Brill, Leiden.
- Marquette, J. 1855. Recit des Voyages det des Decouvertes R. Père Jacques Marquette de la Compagnie de Jesus, en l'Année 1673 et aux Suivantes; La Continuation de ses Voyages par le R. P. Claude Alloüez, le Journal Autographe du P. Marquette en 1674 & 1675. Weed, Parsons & Cie, Albany.
- Mayor, A. 2005. *Fossil Legends of the First Americans*. Princeton University Press, Princeton.
- McAdams, W. 1887. *Records of Ancient Races in the Mississippi Valley*. C.R. Barnes, Saint Louis.
- Meurger, M. and Gagnon, C. 1988. *Lake Monster Traditions. A Cross-cultural Analysis*. Fortean Times, London.
- Nelson, V. 2011. *Dire Dragons*. Untold Secrets of Planet Earth Publishing Company, Red Deer, Alberta.
- Niermann, D.L. 1994. Dinosaurs and dragons. *Creation Ex Nihilo Technical Journal*, 8(1):85-104.
- Patterson, A. 1992. *A Field Guide to Rock Art Symbols of the Greater Southwest*. Johnson Books, Boulder.
- Sarfati, J. 2002. *Refuting Evolution 2*. Master Books, Green Forest, Arkansas.
- Schaafsma, P. 1986. *Indian Rock Art of the Southwest*. University of Mexico Press, Albuquerque.
- Sender, P. and Cole, S.J. 2011. "Dinosaur" petroglyphs at Kachina Bridge site, Natural Bridges National Monument, southeastern Utah: not dinosaurs after all. *Palaeontologia Electronica*, 14(1):2A-5p.
- Spangler, J.D. 2004. Categories and conundrums: the rock art of lower Nine Mile Canyon. p. 119-143. In Matheny, R.T. (ed.), *New Dimensions in Rock Art Studies*. Brigham Young University, Provo, Utah.
- Swift, D.L. 1997. Messages on stone. Ancient rock art challenges evolutionary theory. *Creation Ex Nihilo Technical Journal*, 18(2):20-23.
- Swift, D. 2006. *Secrets of the Ica Stones and Nazca Lines*. No publisher named.
- Taylor, J. 1999. *Fossil Facts and Fantasies*. Mt. Blanco Publishing Group, Crosbyton, Texas.
- Taylor, P. 1979. *The Great Dinosaur Mystery* (motion picture). Eden Films, Gilbert, Arizona.
- Taylor, P.S. 1987. *The Great Dinosaur Mystery and the Bible*. Chariot Victor Publishing, Colorado Springs.
- Temple, W.C. 1956. The Piasa bird: fact or fiction? *Journal of the Illinois State Historical Society*, 49:308-327.
- Turner, C.G. II. 1971. Petrographs of the Glen Canyon region. *Museum of Northern Arizona Bulletin*, 38:1-74.
- Warner, J.S. and Warner, J.E. 1995. Some unique horizontal sunrise and sunset markers in Black Dragon Canyon. *Utah Rock Art*, 4:92-101.
- Wellnhofer, P. 1991. *The Illustrated Encyclopedia of Pterosaurs*. Crescent Books, New York.
- White, T.D., Asfaw, B., DeGusta, D., Gilbert, H., Richards, G.D., Suwa, G., and Howell, C. 2003. Pleistocene *Homo sapiens* from Middle Awash, Ethiopia. *Nature*, 423:742-747.
- Young, M.J. 2004. Ethnographic analogies in southwestern rock art. p. 79-102. In Matheny, R. T. (ed.), *New Dimensions in Rock Art Studies*. Brigham Young University, Provo, Utah.